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VERMONT ENVIRONMENTAL BOARD
10 V.S.A. Chapter 151

Re: Town of Barre
Land Use Permit Application #5W1167-EB

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

This decision pertains to an appeal filed by the Town of Barre (the Town) from the denial by the District #5 Commission of its application for a permit to reconstruct and realign a section of Town Highway #7 and construct a new bridge over the Stevens Branch of the Winooski River and a new intersection with Vermont Route 14 approximately 300 feet south of the existing Town Highway #7/Route 14 intersection (the project). For the reasons explained below, the Board denies the permit application.

I. BACKGROUND

On August 13, 1993, the District Commission issued a decision denying the project. On October 11, 1993 the District Commission issued a decision denying the Town's motion to alter the decision. On October 28, 1993, an appeal of the decision with respect to 10 V.S.A. § 6086(a)(1)(F) (shorelines), 5 (traffic), and 8 was filed by Barre. On November 9, 1993, a cross-appeal with respect to 10 V.S.A. § 6086(a)(10) (local and regional plans) was filed by Kim Hanson, John and Regan Howard, Lee Martinson, George Masi, Priscilla Paquet, William Paquet, Anna Shannon, Randy and Sue Walker, and Ray and Val Vallerand.

On December 6, 1993, former Board Chair Elizabeth Courtney convened a prehearing conference in Barre. On December 9, a prehearing conference report and order was issued.

Several preliminary issues were raised and resolved in a Memorandum of Decision dated December 23, 1993. That decision is incorporated herein by reference.

The Board convened a hearing on April 28 and April 29, 1994, with the following parties participating:

Town of Barre by Stephen Reynes, Esq.
Central Vermont Regional Planning Commission by
Christopher Walsh¹

¹ The Central Vermont Regional Planning Commission appeared to answer questions from the parties and the Board at the Board's request.

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Kim.Hanson (Criteria 1(F), 5); John and Regan Howard (Criteria 5, 8); Lee Martinson (Criteria 5, 8); George Masi (Criteria 5, 8); Priscilla Paguet (Criteria 8, 10); Randy and Sue Walker (Criteria 1(F), 5, 8); Ray and Val Vallerand (Criteria 1(F) (related to their pond), 5, 8) (the Residents) by Frank Reed

The Board viewed the site of the proposed project and the existing road and bridge with the parties on April 28. The hearing was recessed on April 29.

On May 12, 1994, Barre filed proposed findings of fact and conclusions of law. On May 16, the Residents filed proposed findings of fact and conclusions of law.

The Board deliberated concerning this matter on May 18, 1994. On that date, following a review of the proposed decision and the evidence and arguments presented in the case, the Board declared the record complete and adjourned the hearing. This matter is now ready for decision. To the extent any proposed findings of fact and conclusions of law are included below, they are granted; otherwise, they are denied.

II. ISSUES

A. Preliminary Issue

Whether the Regional Plan in effect when the application was filed with the District Commission or the one in effect when the appeal was filed applies.

B. Substantive Issues

Whether the project complies with Criteria 1(F), 5, 8, and 10.

III. FINDINGS OF FACT

1. On August 11, 1992 the Town filed the application for the project with the District #5 Environmental Commission. On March 29, 1993, hearings on a proposed new regional plan commenced. On May 11, 1993, the current regional plan was adopted. The previous regional plan had been in effect since 1989.
2. The project consists of the reconstruction and partial realignment of approximately 1.4 miles of Town Highway #7, from Prospect Street to Vermont Route 14 in the

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Town of Barre. The upper portion of T.H. #7 is known as the Booth-Morrison Road, and the lower portion that includes a bridge over the Stevens Branch of the Winooski River is known as Bridge Street. Approximately 1,600 feet of the Booth-Morrison Road would be relocated from the area of the Shannon residence below Isabelle Electrical Supply to create a new intersection on Route 14 approximately 260 feet south of the existing intersection Route 14 with Bridge Street. A new bridge across the Stevens Branch would be constructed on the relocated portion of the new road, located approximately 300 feet south of the existing bridge on Bridge Street.

3. Beginning at a new intersection on Route 14, the proposed road would cross an existing lawn area (the Tewksbury lot) between two existing residences. At approximately 420 feet from Route 14, the roadway would cross an unnamed brook and continue westerly another 200 feet, where the proposed new bridge would begin. The roadway embankment in this area would be approximately 40 feet above existing grade. The bridge would span a total of 240 feet over the Stevens Branch at a height of 50 to 60 feet at its highest point and end at the top of the existing westerly embankment, approximately 70 feet beyond the existing shoreline. The bridge would consist of two **120-foot** spans with a pier located in the center. The roadway across the bridge would have a grade of five to eight percent. After the bridge, the roadway would continue westerly another 300 feet, where it would begin to curve to the right opposite Isabelle Electric, and would meet the existing roadway alignment opposite the **DeSerres'** property.
4. For most of its length, the new road would contain two 11-foot wide travel lanes. Beginning approximately 300 feet west of Route 14, the pavement would widen to include three 11-foot wide travel lanes to provide a separate turning lane at the intersection with Route 14.
5. The proposed reconstructed road and the new road would have shoulders of four to six feet on both sides throughout the 1.4 miles of the project. Where the shoulders are six feet, four feet would be paved and two feet would be gravel.

6. In **addition** to the new construction on T.H. #7, the project includes some widening of Route 14. The road would be widened to a consistent 33 feet from Wilson Street north through the proposed intersection, tapering to match the existing width at a point approximately 100 feet south of Bridge Street. A new sidewalk would be placed essentially on the same location as the existing sidewalk, and granite curbs would be provided throughout this stretch of construction. A marked crosswalk would be placed across Route 14 just north of the proposed intersection.
7. During construction of the project, the existing bridge would be used for traffic until the new bridge and roadway were completed.
8. After construction is completed, the Bridge Street bridge would be closed to motor vehicles but would remain open for use by pedestrians and bicyclists. The road between the bridge and Route 14 would remain open to vehicles for access to the homes along that stretch of Bridge Street.
9. Twelve homes are clustered along Bridge Street between Route 14 and the Bridge.
10. Across Route 14 from Bridge Street, Sterling Hill Road (Town Highway #53) leads to the Websterville section of the Town of Barre. On the northerly corner of Sterling Hill Road and Route 14 is the M&M beverage store, with access points on both Route 14 and Sterling Hill Road.
11. An unnamed brook crosses under Route 14 and also crosses under the proposed new alignment of T.H. #7. The Route 14 crossing is located approximately 100 feet south of the proposed new Route 14 and T.H. #7 intersection. The unnamed brook would be diverted into a culvert to run under the road back to the Stevens Branch.
12. On April 20, 1992, a stream alteration approval was issued by Barry Cahoon, Stream Alteration Engineer for the Agency of Natural Resources. (Board Exhibit T-13)
13. The western shoreline of the Stevens Branch would remain undisturbed during construction with the exception of construction of a stormwater drainage system and removal of some tall trees.

14. Work on the eastern side of the Stevens Branch would include constructing a fill embankment (the toe of the fill would be located outside a 25-foot buffer area); construction of the bridge pier at the shoreline; temporary installation of a cofferdam; and installation of stone fill and rip rap. In areas above the stream elevation, the stone rip rap material would be covered with one foot of stripped topsoil from the site to stimulate the revegetation of this area. All disturbed areas would be revegetated.
15. Extensive amounts of fill would be placed along the shoreline to support the new roadway. The exact amount of fill needed to support the new roadway is not known.
16. The Stevens Branch and its shoreline in the vicinity of the proposed project provide recreational opportunities for residents in the Village of South Barre. A trail that runs along an old railroad bed along the west bank of the river is used by pedestrians and bicyclists.
17. Current access to the Stevens Branch in the South Barre area is gained primarily across the privately-owned Tewksbury lot and off Stevens Lane across the Walkers' land. Access can also be gained by climbing down the banks of the river near the existing bridge on Bridge Street and where the river goes under Route 63.
18. After construction of the project, there would be two areas of publicly-owned property through which the public may access the Stevens Branch. However, no formal designated public access points to the river would be provided as part of this project.
19. Highways are generally classified into four functional categories: 1) Controlled access highways; 2) arterial; 3) collector; and 4) local. Controlled access and arterial roads are roads whose primary purpose is the movement of vehicles through, into, or out of an area. Collector highways feed the arterial system and also provide access to the development along the road to a significant degree. Local highways primarily provide access to adjacent land. T.H. #7 is a Class 2 town highway, classified in the Barre Town Plan as a major collector.
20. Booth-Morrison Road above Isabelle Electric Supply has a curve of 26 degrees. The road is approximately 22 feet wide for most of its length, and it has no

shoulders. The project would include reducing the curve to 20 degrees. A design speed for a 26 degree curve in a road would be 20 mph.

21. The Bridge Street bridge was built in 1949 to replace an existing bridge. The Vermont Agency of Transportation (AOT) has determined that the bridge is functionally and structurally deficient. The "Federal Sufficiency Rating" for the bridge is 41.8. A score below 50 indicates that replacement is warranted, but is not required.
22. The Bridge Street bridge is on a 240-foot radius curve. After crossing the bridge travelling west, the grade of the road is six percent and the bank across the roadway width is inadequate.
23. The speed limit across the bridge is 30 mph. There are no posted weight limitations for the bridge. Fully loaded dump trucks use the bridge in both directions.
24. On the west side of Route 14, approximately 610 feet south of the T.H. #7 intersection with Route 14, is Stevens Lane (a/k/a Short Street). There are 14 curb cuts between the northernmost curb cut of M&M Beverage and Stevens Lane. Three of these curb cuts are for streets, three are access points to businesses, and eight are driveways serving one or more residences. The proposed project would add a major new curb cut on Route 14. As the number of curb cuts in a given linear segment of highway increases, the potential of accidents increases.
25. On the southwest corner of the Bridge Street and Route 14 intersection are located the South Barre Post Office, the Vermont Lottery building, a 7,000 square foot commercial office building, and a parking lot for these facilities. A count at the Post Office taken by AOT on August 31, 1993 showed that 323 vehicles, 27 pedestrians, and two bicyclists stopped to use the Post Office. On that date, 10,218 vehicles used the intersection of Bridge Street, Route 14, and Sterling Hill. Of these 2,469 used Bridge Street.
26. After construction of the project, vehicles would continue to turn onto and out of Bridge Street after construction of the proposed project to gain access to the 12 residences on Bridge Street, the Lottery Commission, the office building, and the post office.

27. AOT follows the standards established in the book, A Policy on Geometric Design of Highways and Streets (1990), published by the American Association of State Highway and Transportation Officials (AASHTO). AASHTO considers two significant sight distance values when determining the safety of intersections. The corner sight distance must be sufficient for a driver to see to the right or the left to allow a safe turn right or left or to cross an intersection. The stopping sight distance must be sufficient to allow a driver to stop the vehicle when there is a hazard in the road. A hazard would include vehicles stopped at an intersection.
28. Route 14 north of the intersection with Bridge Street has a rise in it so that corner sight distances at the intersection toward the north are below standard. The speed limit for this stretch of Route 14 is 35 miles per hour. According to AASHTO standards, corner sight distances for vehicles entering from a stop-controlled side street into a 35 mph road should be 470 feet. The existing corner sight distance at this location looking northerly is approximately 350 feet.
29. The stopping sight distance required by AASHTO for a speed of 35 mph is 225 to 250 feet. The crest of the hill on Route 14 north of the intersection with Bridge Street reduces the stopping sight distance for vehicles traveling south toward that intersection so that the sight distance is barely adequate.
30. The intersection of T.H. #7 and Route 14 has been identified as a high accident intersection by AOT. In the period 1988 to 1992 there was a total of 23 accidents.
31. The Barre Town School District does not have its buses go up Bridge Street primarily because of the sharpness of the curve above Isabelle electric. The school buses go down the hill without any problem. However, the school bus has difficulty turning right onto Route 14 from Bridge Street. Because of posts on the corner near the Lottery building, the bus must swing out into part of the northbound lane to make the righthand turn.
32. A traffic light at the intersection of Bridge Street with Route 14 and T.H. #53 is warranted under details provided in the Manual on Uniform Traffic Control Devices.

33. Installing a traffic signal at the Bridge Street intersection with Route 14, combined with an advance warning sign **of** a signal ahead on Route 14 to the north_ of the intersection, and a prohibition on right turns on red from Bridge Street onto Route 14 would alleviate some of the problems caused by the insufficient corner sight distance. However, the stopping sight distance must also be improved on Route 14 north of Bridge Street. Otherwise, rear end collisions could result when south-bound vehicles are not able to see vehicles stopped at the traffic light.
34. Improvement of sight distances to the north could be accomplished by lowering the crest of the hill on Route 14 at the intersection, by raising the northern side of the hill, or both.
35. A number of roads in the area, such as Christie Street, Quarry Hill Road, Middle Road, and Route 63, have grades greater than six percent.
36. AOT and Barre considered several alternatives for a new route from the Booth-Morrison Road to Route 14. These consist of the following:

Alternate A would follow the existing corridor to the bridge, flatten the curves, and construct a new bridge upstream of the existing one, intersecting Route 14 at the existing intersection.

Alternate B is the proposed project.

Alternate C would realign T.H. #7 to create a new intersection on Vermont Route 63 (the I-89 access road) approximately 800 feet west of the Route 14/63 intersection. The road would go northerly from Route 63 approximately 1,500 feet until it would join with the existing T.H. #7 opposite Isabelle Electric. This would not cross the Stevens Branch and a bridge would not be required.

Alternate D would replace the initial 1,500 feet of T.H. #7 on an alignment starting opposite Howard's Market on Route 14. This new intersection of T.H. #7 and Route 14 would be 900 feet south of the existing one and 600 feet north of the intersection of Routes 63 and 14. The road would head westerly, crossing the Stevens Branch, and then turn northerly joining the existing T.H. #7 at the same location **as** Alternate C.

37. After reviews and comments from the public, alternates C and D were dropped from consideration. Alternate C raised concerns about the safety of the intersection with Route 63 that would be located at the base of a steep hill on Route 63. The Department of Agriculture and landowners were concerned about the impact on farm operation and loss of farmland. Alternate C also affected wetlands and required some filling of a flood plain. Alternate D affected farmland, wetlands and flood plain areas. A longer bridge would be required to span the existing flood plains.
38. In response to citizens' concerns about the width of the new road, Barre requested AOT to reduce the shoulders from 8 feet to four feet or less and the travel lanes from 11 feet to 10 feet. AOT then requested the Federal Highway Administration (FHWA) for the same width reductions and for a reduction in the clear zone from 20 feet to 10 feet. In 1988, the FHWA accepted a 10-foot clear zone and approved the reduction in shoulder width to 6 feet in non-curbed areas and 4 feet in curbed areas. The FHWA did not approve a reduction in the travel lane width. Other adjustments were made to respond to the concerns of neighbors.
39. In 1991, the United States Congress passed legislation known as the Intermodal Surface Transportation Efficiency Act (ISTEA). ISTEA eliminates federal design standards for non-National Highway System (NHS) highways. T.H. #7 is a non-NHS highway. States are no longer required to use federal standards for NHS roadways. ISTEA allows each state to develop its own design standards and variance procedures for non-NHS roadways.
40. AOT has not yet adopted design standards, and it uses the design standards developed by AASHTO. AOT considers AASHTO standards mandatory, but it has the authority to grant variances from AASHTO design standards. There are no written guidelines for variances; exceptions are granted on a case-by-case basis by a committee within AOT which consists solely of AOT personnel.
41. In considering whether to grant a variance from AASHTO design standards, AOT takes into account the total situation, including the needs and uses of the area. AOT has approved variances from design standards when

application of the standards caused undesirable impacts on environmental, aesthetic, or historic resources.

42. AOT considered making improvements within the existing alignment of T.H. #7. AOT decided against these in part because it believes that in order to improve visibility at the intersection of Bridge Street with Route 14, an historic building would be affected because the roadway would be placed about three feet from the barn attached to the historic building. The barn is currently six feet from the highway. Moving the highway three feet closer would not require removal of the barn.
43. A bridge approximately the same size could be built at the same location if AOT gave its approval for variances to AASHTO design standards. Similarly, the road above the bridge could be improved in the existing right-of-way, with the same travel lane widths and the same shoulder widths, if AOT approved variations in AASHTO design standards.
44. South Barre was the first settlement in Barre Town, established during the middle of the nineteenth century. The main road, the old Boston-Montreal toll road which followed the river south from Barre City to Williamstown and beyond, became Route 14. A bridge was constructed at a narrow point in the valley which allowed a road connection to Berlin and points west. That is the bridge on Bridge Street.
45. The original village of South Barre stretched along the main road, and subsequent residential development extended along narrow streets up the slopes to the east. The steep slopes on both sides of the valley serve as the visual and functional boundary of the village. A small amount of residential development has extended west to the top of the river valley bank. The village is mostly residential with some commercial facilities. Sterling Hill and the large open space of the Stevens Branch valley are the dominant physical features of the community.
46. Most of the historic pattern can still be seen today in South Barre Village. The Vermont Division for Historic Preservation has designated the Village an Historic District which stretches from just north of Bridge Street to just south of Route 63, and includes 45 buildings.

47. **The buildings** in South Barre Village are quite close together, reflecting nineteenth century settlement patterns. The size of the buildings, the setbacks between the buildings and the streets, and the width of the streets are all of a scale that indicates slow speeds and pedestrian use. The proposed roadway will be wider and straighter, designed for moderate speed and volumes of automobile and truck traffic.
48. The predominant land use in the Village is residential, although several businesses are scattered along the one-third mile stretch of Route 14 from Bridge Street to Route 63.
49. Route 14 in the vicinity of South Barre is a relatively narrow highway containing two travel lanes and a sidewalk along the east side.
50. The west wall of the Stevens Branch valley is quite steep in the area of the Booth-Morrison Road and the proposed new road. South of there, Scott's Brook has carved a wide ravine which has pushed the wall to the west and made the slope more gradual. On the east side of the river there is a shelf about four feet above the water line, hemmed in by the steep slopes leading up to Sterling Hill to the east. An unnamed tributary has created a ravine extending well into the eastern wall of the valley.
51. The valley floor, which is level and varies in width, consists of a wooded wetland through which the Stevens Branch meanders. The valley is quite narrow at the northern end near the existing bridge, and widens out to the south. The woods extend throughout the valley floor and up the banks. The river is approximately 50 feet wide at the point where the new bridge is proposed.
52. The Stevens Branch and its banks in the South Barre area provide a peaceful natural area enjoyed by residents for fishing, walking, and experiencing nature. Deer, raccoons, fox, beaver, woodchucks, ducks, and blue herons have been observed there.
53. Residents of the South Barre community use the public and commercial facilities in its center and the open space resources along its western edge. They walk and bicycle to the commercial facilities, to the trail that parallels the river, and to the river itself.

54. **The new** road would descend from the high bank west of the river and establish a grade suitable for motor vehicle traffic, regardless of the natural slope of the land. The bridge structure would be 240 feet long, and, with the embankment on the east side, the road would span a valley that is over 500 feet wide.
55. In contrast, the existing road alignment descends along the western side of the valley to a 95-foot long bridge that crosses a narrow part of the valley.
56. The new road would visually cut the valley into two segments north and south, instead of along its natural east-west lines created by the steep hills, the valley, and the river.
57. The existing bridge is 34 feet above the Stevens Branch. The height of the proposed new bridge above the Stevens Branch would be 50 to 60 feet at its highest point, approximately 20 to 35 feet higher in elevation than the Walkers' house.
58. No **other** bridges of the size and scale of the proposed one are located in the vicinity of South Barre.
59. Construction of the new road and bridge would require eliminating a residential dwelling across the road from Isabelle Electric near where the road would divert from the existing alignment near Isabelle Electric.
60. The backyards of the Howard and Walker residences extend to the Stevens Branch and its banks. Both properties are on a sort of promontory partially surrounded by steep slopes and the open space of the valley floor. The backyards are private and cannot be viewed by the public. Both families make extensive use of their backyards and enjoy the peace and quiet.
61. The new road embankment and bridge would be clearly visible from both the Howard and Walker properties. The edge of the shoulder of the bridge would be approximately 92 feet from the Howard residence and approximately 110 feet from the Walkers' backyard pool. The second story bedroom of the Howard residence would be above the new road, and only 100 to 110 feet from the nearest travel lane on the proposed road.
62. The project would have substantial impacts on the Walkers' and **Howards'** properties. The impacts include

visual and audible intrusions due to the large scale of the new structure and the increased noise from cars and trucks ascending and descending the steep grade. The proposed plantings would not screen the noise, odor, and sight of the road from their bedroom. The quiet, private areas that both families enjoy would be lost.

63. The Town of Barre has proposed an extensive landscaping plan designed to mitigate the visual impact of the new road and bridge construction. The plan calls for the planting of a total of 294 trees and 180 shrubs. The trees consist of both softwoods and hardwoods.
64. No maintenance or replacement plan for these plantings beyond the usual one-year seller's guarantee is proposed. Barre's consultant assumes the Town or AOT would be responsible for maintenance and replacement of those plantings located on public property, and that the owners of the land on which the other trees and shrubs would be planted would be responsible for maintaining and replacing those.
65. If shade trees are not fertilized and maintained, it will take longer for them to grow to the size necessary to provide screening of the roadway.
66. Under proper conditions, deciduous trees could provide a **"softening"** effect in four to eight years, but would not provide effective screening for the neighbors for 12 years or more after planting, and then would only partially screen the proposed road from their properties.
67. The Division for Historic Preservation did not evaluate the impacts on historic structures that would result from the proposed project other than the barn adjacent to Route 14 immediately north of Bridge Street and the Bond house located at the western end of the project on the north side of the road that would be moved several feet back from the road.
68. The Town adopted its municipal plan in 1992. In its discussion of scenic resources it states the following, at page 33:

In the 1989 planning survey dealing with future growth, preservation of visual beauty was the highest priority of the residents polled. Eighty-nine percent

of those responding said that planning to retain visual beauty was necessary.
. . . Barre Town's visual beauty is an asset which the Town has to offer to any prospective resident or employer who is considering relocating to the community.
. . . [T]he Town of Barre's policy regarding aesthetics is one of encouraging enhancement and preservation of natural areas, views, and vistas ..
. . .

69. The Town Plan, at page 60, contains the following recommendations to guide future road improvements applicable to this project:

1. Relocation or widening should be done within existing right-of-ways [sic] whenever possible.

2. Future improvements should be accomplished with minimal disturbance to homes, businesses, streams, ponds, trees, wetlands, schools, public recreational facilities, and to important historic and archaeological resources.

. . .

4. Conservation of resources should be a goal in all highway construction and rehabilitation.

70. The Town Plan recommends that road improvements and new roads should be designed to accommodate bicycles and pedestrians safely.

71. The 1989 Regional Plan's policies concerning Regional Road Networks include the following at page 29-30:

Safety and efficiency of vehicular travel is the first priority of capital improvement decisions regarding the roadway network. Roads and intersections demonstrating unsafe performance (based on accident statistics), or gross inefficiency

during off-peak hours (level of service "E" or lower) would rate the highest consideration for improvement.

Bridges are recognized as key to Central Vermont's economic vitality. While safety considerations are paramount, weight-limited bridges adversely affecting commerce (narrow access, poor approaches overall, and low sufficiency ratings), should receive priority considerations for improvements.

This plan endorses the appropriate widening, rehabilitating, reconstruction, relocation, or resurfacing of the region's arterial roads as indicated by safety and/or efficiency factors. Such improvements should be designed with regard for the scenic, historic, cultural, natural, and economic resources of the region. The design process should include extensive consultation with affected property owners, planning commissions, and other local and regional officials.

Safety improvements should focus on the most efficient expenditure of funds for the greatest benefit of safety levels.

IV. CONCLUSIONS OF LAW

A. Applicability of the Regional Plan

Parties raised the issue of which regional plan applies: the 1989 plan that was in effect when the application for this project was filed on August 11, 1992, or the one subsequently adopted on May 11, 1993.

The usual rule in Vermont concerning vested rights was articulated by the Supreme Court in Smith v. Winhall Planning Commission, 140 Vt. 178 (1981). The Court ruled that rights vest "under the then existing regulations as of the time when proper application is filed" Id. at 181. Subsequent to Smith, the Court has ruled that it is appropriate to consider the public interest as well as the

private **interest** in applying the vested rights rule. See In re McCormick Management, 149 Vt. 585, 588-590 (1988). Accordingly, the Board balances the public and private interests. If the competing public interests do not outweigh the private interest in predictability, the Board applies the usual vested rights rule of Smith. Re: Swain Development Corporation, #3W0445-2-EB, Memorandum of Decision at 4-7 (Dec. 6, 1991).

In this appeal, no evidence was presented that the public interest in applying the recently-adopted regional plan outweighs the Applicant's interest in applying the plan in effect when the application was filed. Accordingly, the Board will apply the 1989 regional plan in its consideration of conformance of this project to the regional plan under Criterion 10.

B. Criterion 1(F) (shorelines)

10 V.S.A. § 6086(a)(1)(F) requires an applicant **for** a permit to demonstrate that

the development or subdivision of shorelines must of necessity be located on a shoreline in order to fulfill the purpose of the development or subdivision, and the development or subdivision will, insofar as possible and reasonable in light of its purpose:

(i) retain the shoreline and the waters in their natural condition,

(ii) allow continued access to the waters and the recreational opportunities provided by the waters,

(iii) retain or provide vegetation which will screen the development from the waters, and

(iv) stabilize the bank from erosion, as necessary, with vegetation cover.

The proposed road construction involves extensive alterations to the shoreline of the Stevens Branch. The first consideration under this criterion is, therefore, whether the project **"must** of necessity be located on a shoreline in order to fulfill the purpose of the [project]."

In In re McShinsky, 153 Vt. 586 (1990), the Vermont Supreme Court interpreted this language as follows:

We do not believe the phrase "**insofar** as possible and reasonable in light of its **purpose**" means that the Board must accept every proposed shoreline development project, regardless of its purpose and impact on the shoreline, merely because the applicant is doing what he or she feels is possible or reasonable. ... Rather, criterion 1(F) requires. **that** the Board make its own determination that a development need be located on the shoreline and that, considering the purpose of the development, "**possible** and reasonable" measures have been taken to protect the shoreline.

Id. at 591.

The Board understands that the purposes of this project are the following: to improve the safety of Town Highway #7 from just above Isabelle Electric to its intersection with Route 14, to replace the bridge, and to decrease the potential for accidents at the intersection of Route 14 and Town Highway #7. In order to accomplish this, AOT and the Town propose to construct a new road, a new bridge, and a new intersection, and to eliminate the use of the existing bridge by vehicles. This would result in substantial alterations to the shoreline of the Stevens Branch and to the natural environment created by the river and the shoreline area. The construction on the shoreline of the river, including the placement of the large amounts of fill that would be needed to support the roadway, would destroy the natural beauty of the shoreline.

After careful consideration of the evidence presented, the Board concludes that construction of the road in the area proposed is not necessary in order to correct the problems identified by AOT and the Town. The Board is not persuaded that improvements within the existing alignment of Town Highway #7 would cause unsafe conditions for vehicles traveling at reasonable rates of speed. Testimony established that it is possible to repair or replace the bridge in its existing location. Based upon AOT's testimony that it has the authority to vary the AASHTO design standards for non-federal roads, the Board concludes that

the safety concerns could be addressed by upgrading the road and replacing the bridge in its existing location. Moreover, the closing of the existing bridge and construction of a new intersection approximately 260 feet to the south will not alleviate the safety concerns at the intersection of Town Highway #7 and Route 14. That is, vehicles associated with the residences located between the bridge and Route 14 will still need to turn into and out of the intersection, and vehicles will still need to turn into and out of the Post Office, the Lottery building, and the office building located on the southwest corner of the intersection. The deficient corner sight distance for these vehicles would remain. In addition, school buses serving residences located between the bridge and Route 14 would still be forced to compromise safety when they turn out of Bridge Street.

Instead of constructing a massive new roadway and bridge in a quiet residential neighborhood, the evidence demonstrated that AOT and the Town could improve safety by reducing the speed limit on Town Highway #7, repaving the road, replacing the bridge in its existing alignment, installing a traffic light at the intersection of Town Highway #7 and Route 14, and installing a blinking light and warning sign north of the intersection to alert drivers approaching the intersection. The possibility of lowering the crest of the hill or raising the height of Route 14 north of the intersection to improve sight distances could be further explored.

Since reasonable alternatives exist that address the safety concerns identified by AOT and the Town, the Board concludes that the road safety improvement project need not be located on a shoreline to fulfill its purposes.

Having found that the project need not be located on a shoreline to fulfill its purposes, the Board need not address the four subcriteria of Criterion 1(F). However, for the record the Board concludes (i) that the project will not retain the shoreline and the waters in their natural condition; (ii) that the project will allow continued access to the waters and the recreational opportunities provided by the waters; (iii) that the project will not retain or provide sufficient vegetation to screen the development from the waters; and that (iv) the river bank will be stabilized from erosion, as necessary, with vegetative cover.

C. Criterion 5 (traffic)

10 V.S.A. § 6086(a)(5) provides that, prior to issuing a permit, the Board must find that the proposed project "[w]ill not cause unreasonable congestion or unsafe conditions with respect to use of the highways ...". The Board may not deny a permit pursuant to Criterion 5 and may issue conditions to alleviate the burdens created. 10 V.S.A. § 6087(b). The burden of proof is on the opponents under Criterion 5, but the applicant must provide sufficient information for the Board to make affirmative findings. 10 V.S.A. § 6088(b); Re: Berlin Associates, #5W0584-9-EB, Findings of Fact, Conclusions of Law, and Order at 15 (Feb. 9, 1990).

The Town has stated that one of the purposes of the project is to eliminate an existing dangerous condition which is present at the intersection of Town Highway #7 and Route 14. In In re Pilgrim Partnership, 153 Vt. 594 (1990), the Vermont Supreme Court stated, with respect to Criterion 5, that "it would be absurd to permit a hazardous condition to become more hazardous." Id. at 596.

There is no dispute that the intersection of Town Highway #7 and Route 14 is a hazardous intersection due to inadequate sight distances and the crest of a hill on Route 14 just north of the intersection. This project does not include a plan for improving the sight distance at the intersection, but would create another intersection just 260 feet to the south. Although the number of vehicles turning in and out of Bridge Street would be reduced, many of those same vehicles would have to pass by the intersection northbound. Adding another curb cut without addressing the safety hazards created by the inadequate sight distance at the existing intersection would exacerbate the existing unsafe conditions. We therefore conclude that the project does not comply with Criterion 5.

If the Board were issuing a permit, it would impose conditions to alleviate the safety hazards at the intersection of Route 14 and Town Highway #7. These would involve improving the sight distances at that intersection.

D. Criterion 8 (aesthetics)

10 V.S.A. § 6086(a)(8) requires that, prior to issuing a permit for the proposed project, the Board must find that the project "[w]ill not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics

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The Board uses a two-part test to determine whether a project meets Criterion 8. First, it determines whether the project will have an adverse effect. Second, it determines whether the adverse effect, if any, is undue. Re: Ouechee Lakes Corp., Applications #3W0411-EB and #3W0439-EB, Findings of Fact, Conclusions of Law and Order at 18-19 (January 13, 1986).

With respect to the analysis of adverse effects on aesthetics and scenic beauty, the Board looks to whether a proposed project will be in harmony with its surroundings or, in other words, whether it will "fit" the context within which it will be located. In making this evaluation, the Board examines a number of factors, including the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the locations from which the project can be viewed, and the potential impact of the project on open space. Certain types of land forms which tend to be visible from a wide area are given special attention in assessing the visual effect of a project. Id. at 18-19.

The Board concludes that the project will create an adverse effect on aesthetics and the scenic beauty of the area, primarily due to the large scale of the project in relation to its surroundings. The Village of South Barre is a small village consisting primarily of residential structures, many of which are recognized as having historic significance. No other structures or bridges of this magnitude are located in the area. The proposed 240-foot bridge structure, standing 55 feet above the river spanning a valley that is over 500 feet wide, would overwhelm the natural characteristics of the valley and provide an incongruous contrast with the South Barre Village setting and its residential neighborhoods. The new road and bridge would be visible to the residents who live near it as well as all the members of the public who use the river valley for recreation and quiet enjoyment. It would significantly alter the character of the Village as well as of the peaceful natural area around the Stevens Branch and its shoreline that is enjoyed by adjacent neighbors as well as other residents of the area.

Having concluded that the bridge and its high-banked eastern approach does not fit in the historic 19th **centural** village of South Barre, the Board must analyze three factors in evaluating whether adverse effects on aesthetics and scenic beauty are undue. The Board will conclude that the

adverse effect is undue if it reaches a positive conclusion with respect to any one of these factors, which are:

- a. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?
- b. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it **is out of character with its** surroundings or significantly diminishes the scenic qualities of the area?
- c. Has the Applicant failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the proposed project with its surroundings?

Quechee at 19-20.

The Board concludes that no clear, written community standard intended to preserve the aesthetics of the area exists. In adopting the first standard in the Quechee analysis, the Board intended to encourage towns to identify scenic resources that the community considered to be of special importance: a wooded shoreline, a high ridge, or a scenic back road, for example. These designations would assist the district commissions and the board in determining the scenic value of specific resources to a town, and would guide applicants as they design their projects.

While parties cite several general provisions of the Town Plan that recommend preserving and enhancing the visual beauty of Barre Town, the Board believes that these provisions do not rise to the level of a "clear, written community standard" because they apply generally to the community at large rather than to specific scenic resources in the project area. Accordingly, the Board does not find the adverse effect "**undue**" under the first part of the analysis.

With respect to the second test, the Board concludes that this project is shocking and offensive because it is so obviously out of character with its surroundings. The insertion of this massive structure into the area would destroy the existing natural character of the river and the surrounding **river valley, as well as of the historic South Barre Village**. The imposition of an interstate-style solution to meet a local safety problem, and the contrast

between the scale of the highway and bridge structure and the historic settlement of South Barre, leads the Board to the conclusion that the project, when viewed as a whole, is shocking and offensive.

The third test under the Quechee analysis considers whether the applicant has taken "generally available mitigating steps which a reasonable person would take to improve the harmony of the proposed project with its surroundings." Quechee at 20. Failure to take advantage of "reasonable alternatives available to the Applicant that would mitigate the adverse impact of the project" may render an adverse effect undue.

The Town has proposed extensive landscaping to screen the project from the public view. Certainly the plantings would lessen the visual impact of the highway and bridge, although much of the screening would not be effective for at least 10 years. However, some projects are so massive and out of scale with their surroundings that the adverse visual impact cannot be mitigated by plantings. As the Board stated in Re: Northshore Development, Inc., #4C0626-5-EB, Findings of Fact and Conclusions of Law and Order at 11 (Dec. 29, 1988):

[T]he Board does not believe that a building that is incompatible with its surroundings can be made compatible by attempting to screen it from view. The mass, scale, and design of the buildings standing alone should be appropriate for their surroundings. Landscaping should be used to help soften the effect of a building or to enhance aesthetic enjoyment. ...

As stated above, the Board believes that the size of the road and bridge structure is so greatly out of scale with its surroundings that no amount of screening can successfully mitigate the visual effect on the natural area and the Village.

As further evidence that it has attempted to mitigate the adverse effects of the project, the Town presented several alternative routes that it considered, along with the reasons why these routes are not acceptable. Apparently AOT also rejected the possibility of improving the road and replacing the bridge within their existing alignments because this would not meet AASHTO design standards. The

Board understands that at the time this project was first designed, federal approval was needed for deviations from accepted design standards. Since then, **ISTEA** has been enacted and states may develop their own standards and grant variances from design standards in certain situations. As a result, AOT could grant variances from the AASHTO standards to allow the rebuilding of the road and bridge within their existing alignments.

The Board concludes that, in this situation, the adverse effects of the project could only be mitigated by making the necessary safety improvements within the existing alignment (with minor modifications) of Town Highway #7, as described above in the discussion under Criterion 1(F). We are mindful that there is a fine line between Board's considering alternatives and redesigning the project. However, in situations where a project would clearly have an adverse visual impact and evidence in the record establishes that reasonable alternatives clearly exist that would significantly lessen the adverse visual effect, we believe that it is within our purview to conclude that an applicant has failed to mitigate the adverse impact to the extent possible.

In this case, substantial evidence was presented that the necessary safety improvements could be made within the existing road and bridge alignment on Town Highway #7, and that improving traffic safety at the intersection with Route 14 through signalization and other means would be possible. Accordingly, the Board concludes that the proposed project would create an undue adverse effect on aesthetics and the natural and scenic beauty of the area.

Criterion 10

Criterion 10 requires the Board to conclude that the project conforms with the applicable local and regional plans. As explained above, we have determined that the applicable regional plan is the one adopted in 1989 that was in effect on the date the application for this project was filed. The applicable Town Plan was adopted in 1992.

With respect to the Town Plan, the project would improve Town Highway #7 for use by bicycles, as paved shoulders would be provided where there are none, and the bridge would be closed to traffic.

Despite this improvement for bicycles, the Board concludes that the clear contradiction between this project

and the Town Plan's recommendations for road improvements mandates the conclusion that the project does not conform with the Town Plan.

The Town Plan's first recommendation for road improvements is that relocation or widening be done within existing rights-of-way whenever possible. For the reasons explained above, the Board concludes that it is possible to address traffic safety concerns within the existing right-of-way.

The second recommendation is that improvements be accomplished with minimal disturbance to homes and natural and historic resources. Even with the extensive plantings proposed, this project would cause the loss of a residence, extensive damage to lawns, shrubbery, and trees, and substantial impacts on adjacent private properties. It would also cause significant and adverse changes to the shoreline, the wooded natural area around the river, and the character of South Barre Village, a designated historic district.

Another recommendation is that "conservation of resources should be a goal in all highway construction and rehabilitation.** In contrast, this extensive road and bridge construction project would require the expenditure and use of significant new resources, whereas upgrading the road within the existing alignment would have minimal impact on the environment of South Barre.

Accordingly, the Board concludes that this project does not conform to the Town Plan.

With respect to the 1989 Regional Plan, the Board concludes that the project is consistent with the Plan's policies for regional road networks.

Because a positive conclusion under Criterion 10 requires a finding of conformance with both the town and regional plans, the Board concludes that this project does not comply with Criterion 10.

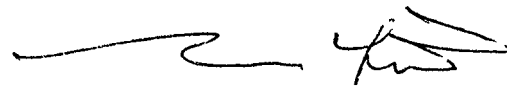
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V. ORDER

Land Use Application #5W1167-EB is hereby denied.
Jurisdiction is returned to the District #5 Environmental
Commission.

Dated at Montpelier, Vermont this 2nd day of June,
1994.

ENVIRONMENTAL BOARD



Arthur Gibb, Chair
Darby Bradley
Lawrence Bruce
John Ewing
Lixi Fortna
Steve E. Wright

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